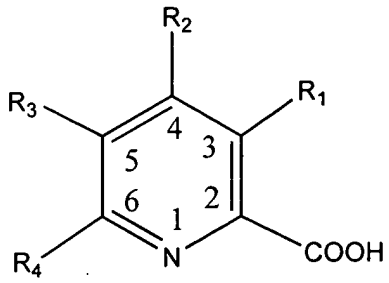
IN THE CLAIMS:

Claims 1-12 (Cancelled).

13. (Previously presented) A pharmacologically active metal ion chelating agent adapted for treatment of a disease, disorder, or condition selected from the group consisting of hepatitis C infections, angiogenesis, sun burn, metastatic colon cancer and upper respiratory infections, wherein the disease, disorder or condition is mediated by a protein having a metal ion-protein complex, the agent having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, wherein when said agent is adapted for the treatment of sunburn, the agent is not zinc picolinate.

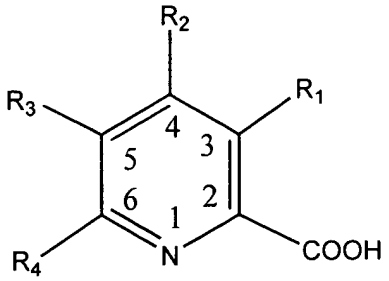
14. (Previously presented) The metal ion chelating agent of claim 13 wherein R_3 is a butyl group.

15. (Previously presented) The metal ion chelating agent of claim 13 wherein said metal is zinc.

16. (Previously presented) The metal ion chelating agent of claim 13 further comprising at least one of a pharmacologically suitable isotonic vehicle, a pharmacologically effective and physiologic saline vehicle and a nebulizing agent.

17. (Previously presented) The metal ion chelating agent of claim 13 wherein R_1, R_2, R_3 and R_4 are hydrogen.

18. (Previously presented) A pharmacologically active metal ion chelating agent adapted for treatment of a disease, disorder, or condition selected from the group consisting of hepatitis C infections, angiogenesis, sun burn, inflammation associated with acne, metastatic colon cancer and upper respiratory infections, wherein the disease, disorder or condition is mediated by a protein having a metal ion-protein complex, the agent having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

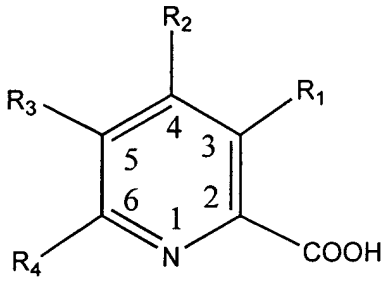
R_3 is a butyl group.

19. (Previously presented) The metal ion chelating agent of claim 18 wherein said metal is zinc.

20. (Previously presented) The metal ion chelating agent of claim 18 further comprising at least one of a pharmacologically suitable isotonic vehicle, a pharmacologically effective and physiologic saline vehicle and a nebulizing agent.

21. (Previously presented) A method for the treatment of at least one disease, disorder or condition selected from the group consisting of metastatic colon cancer, hepatitis C infections,

angiogenesis, sun burn, and upper respiratory infections comprising administering an effective amount of a pharmaceutical composition comprising a metal ion chelating agent to an individual having said at least one disease, disorder or condition the metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

22. (Previously presented) The method of claim 21 wherein R_3 is a butyl group.

23. (Previously presented) The method of claim 21 wherein said pharmaceutical composition is administered in the range of about 500 mg twice per day to about 2000 mg per day.

24. (Previously presented) The method of claim 21 wherein said pharmaceutical composition further comprises a pharmacologically suitable isotonic vehicle.

25. (Previously presented) The method of claim 24 wherein said pharmaceutical composition is an intranasal solution comprising in the range between about 0.01 mM to about 50 mM said metal ion chelating agent and at least one said pharmacologically suitable isotonic vehicle.

26. (Previously presented) The method of claim 25 wherein said intranasal solution comprises in the range between about 0.1 mM to about 20 mM said agent.

27. (Previously presented) The method of claim 26 wherein said intranasal solution comprises about 3mM said metal ion chelating agent.

28. (Previously presented) The method of claim 21 wherein said pharmaceutical composition is a systemic medicament comprising in the range of about 1% to about 100% said metal ion chelating agent and a pharmacologically acceptable carrier.

29. (Previously presented) The method of claim 28 wherein said pharmaceutical composition is in capsule form.

30. (Previously presented) The method of claim 21 wherein said pharmaceutical composition further comprises at least one nebulizing agent.

31. (Previously presented) The method of claim 30 wherein said pharmaceutical composition is an inhalant comprising in the range between about 0.001% to about 50% metal ion chelating agent and said nebulizing agent.

32. (Previously presented) The method of claim 30 wherein said nebulizing agent is at least one nebulizing agent selected from a group consisting of water and saline.

33. (Previously presented) The method of claim 21 wherein said pharmaceutical composition further comprises a topical lotion.

34. (Previously presented) The method of claim 33 wherein said pharmaceutical composition is a formulation for the treatment of sunburn and comprises in the range between about 1% to about 99% said metal ion chelating agent and said topical lotion.

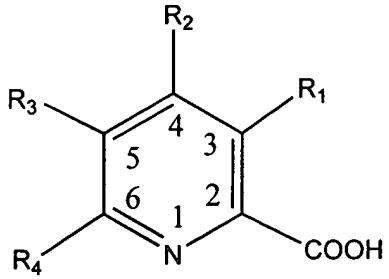
35. (Previously presented) The method of claim 34 wherein said pharmaceutical composition comprises in the range between about 5% to about 15% of said metal ion chelating agent.

36. (Previously presented) The method of claim 31 wherein said pharmaceutical composition is an ophthalmic preparation for the control of angiogenesis and said pharmaceutical composition comprises in the range between about 0.01% to about 99% said metal ion chelating agent and a pharmacologically acceptable carrier.

37. (Previously presented) The method of claim 36 wherein said pharmaceutical composition comprises in the range between about 5% to about 10% said metal ion chelating agent.

38. (Previously presented) The method of claim 31 wherein R_1, R_2, R_3 and R_4 are hydrogen.

39. (Previously presented) A method for the treatment of at least one disease, disorder or condition selected from the group consisting of metastatic colon cancer, hepatitis C infections, angiogenesis, sun burn and upper respiratory infection comprising administering an effective amount of a pharmaceutical composition comprising a metal ion chelating agent to an individual having said at least one disease, disorder or condition, the metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine and hydrogen; and

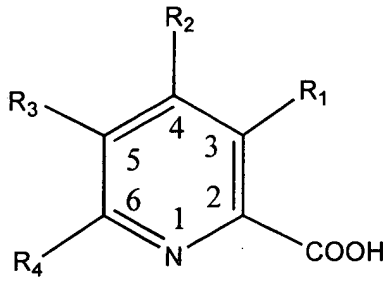
R_3 is a butyl group.

40. (Previously presented) The method of claim 39 wherein said pharmaceutical composition further comprises a topical lotion.

41. (Previously presented) The method of claim 40 wherein said pharmaceutical composition is a formulation for the treatment of inflammation associated with acne and comprises in the range of between about 1% to about 99% metal ion chelating agent and said topical lotion.

42. (Previously presented) The method of claim 41 wherein said pharmaceutical composition comprises in the range of about 5% to about 15% of said metal ion chelating agent.

43. (Previously presented) A systemic preparation comprising approximately 1% to approximately 100% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following structure:



or a pharmacologically acceptable salt thereof,

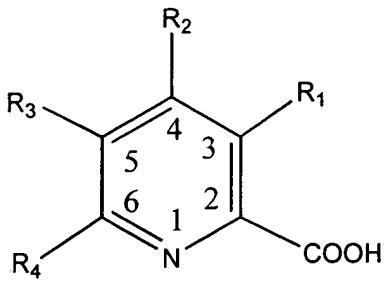
wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, and wherein said agent is not zinc picolinate.

44. (Previously presented) The systemic preparation of claim 43 wherein said route of administration is a capsule.

45. (Previously presented) The systemic preparation of claim 43 wherein R_3 is a butyl group.

46. (Previously presented) The systemic preparation of claim 43 wherein R_1, R_2, R_3 and R_4 are hydrogen.

47. (Previously presented) A systemic preparation comprising approximately 1% to approximately 100% metal ion chelating agent and a pharmacologically acceptable route of administration, wherein said metal ion chelating agent is represented by the following structure:

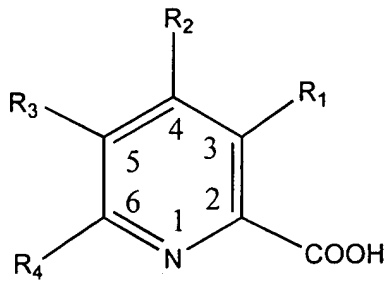


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 is selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

48. (Previously presented) An intranasal solution from about 0.01 mM to 50 mM metal ion chelating agent and at least one pharmacologically suitable isotonic vehicle, said metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen, and wherein said agent is not zinc picolinate.

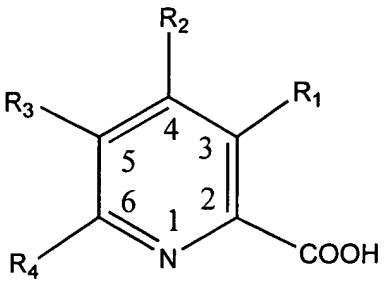
49. (Previously presented) The intranasal solution of claim 48 wherein R_3 is a butyl group.

50. (Previously presented) The intranasal solution of claim 48 comprising in the range between about 0.1 mM to about 20 mM said metal ion chelating agent.

51. (Previously presented) The intranasal solution of claim 50 comprising approximately 3mM of said metal ion chelating agent.

52. (Previously presented) The intranasal solution of claim 48 wherein R_1, R_2, R_3 and R_4 are hydrogen.

53. (Previously presented) An intranasal solution comprising in the range between about 0.01 mM to about 50 mM metal ion chelating agent and at least one pharmacologically suitable isotonic vehicle, said metal ion chelating agent represented by the following structure:



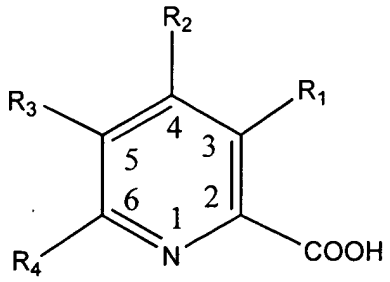
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 is selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen;

and R_3 is a butyl group.

Claims 54-64 (Cancelled).

65. (Previously presented) An ophthalmic preparation adapted for the control of angiogenesis comprising in the range between about 0.01% to about 99% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following formula:



or a pharmacologically acceptable salt thereof,

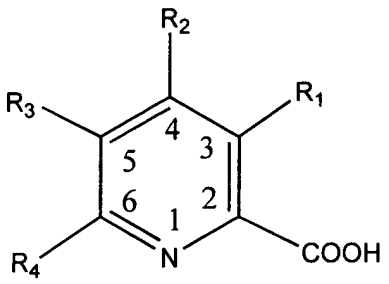
wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

66. (Previously presented) The ophthalmic preparation of claim 65 wherein R_3 is a butyl group.

67. (Previously presented) The ophthalmic preparation of claim 65 comprising in the range of about 5% to about 10% said metal ion chelating agent.

68. (Previously presented) The ophthalmic preparation of claim 65 wherein R_1, R_2, R_3 and R_4 are hydrogen.

69. (Previously presented) An ophthalmic preparation adapted for the control of angiogenesis comprising from about 0.01% to about 99% metal ion chelating agent and a pharmacologically acceptable carrier, wherein said metal ion chelating agent is represented by the following formula:

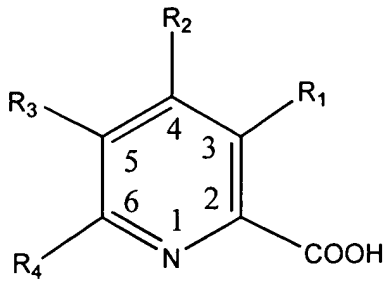


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

70. (Previously presented) A lavage comprising at least one metal ion chelating agent represented by the following structure:



or a pharmacologically acceptable salt thereof,

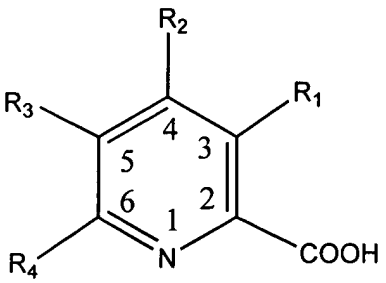
wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

71. (Previously presented) The lavage of claim 70 comprising about 20% said metal ion chelating agent.

72. (Previously presented) The lavage of claim 70 wherein R_3 is a butyl group.

73. (Previously presented) The lavage of claim 70 wherein R_1, R_2, R_3 and R_4 are hydrogen.

74. (Previously presented) A lavage comprising at least one metal ion chelating agent represented by the following structure:



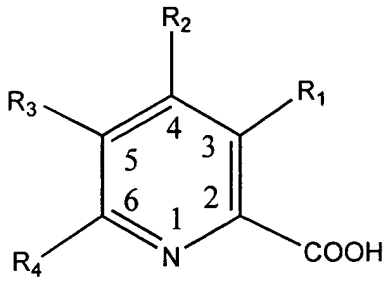
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group,

secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

75. (Presently presented) A preservative comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:



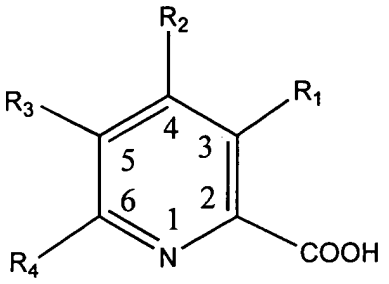
or a pharmacologically acceptable salt thereof,

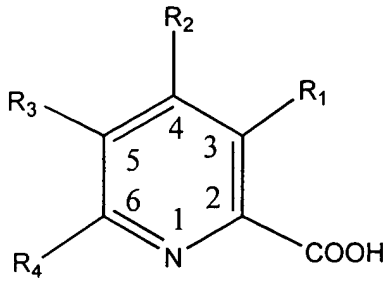
wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

76. (Previously presented) The preservative of claim 75 wherein R_3 is a butyl group.

77. (Previously presented) The preservative of claim 75 wherein R_1, R_2, R_3 and R_4 are hydrogen.

78. (Previously presented) A preservative comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:



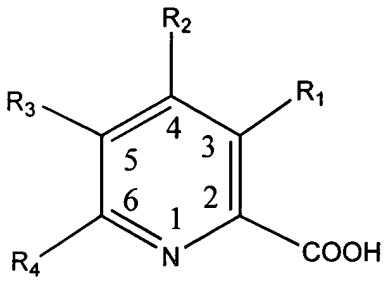


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

79. (Previously presented) A method of preserving an item comprising physically contacting the item with a composition comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:

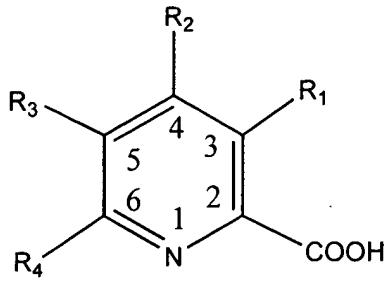


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3 or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

80. (Previously presented) The method of claim 79 wherein R_3 is a butyl group.

83. (Previously presented) A method of preserving an item comprising physically contacting said item with a composition comprising a metal ion chelating agent, said metal ion chelating agent represented by the following structure:

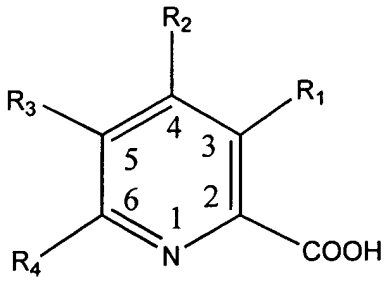


or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is a butyl group.

84. (Previously presented) A method for treating inflammation associated with acne comprising administering to an individual suffering from such inflammation a composition comprising a compound having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, or R_4 are independently selected from the group consisting of a peptide of sixteen amino acids, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group,

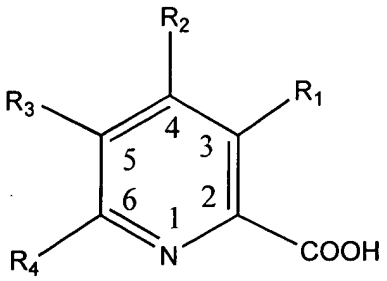
butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

R_3 is selected from the group consisting of a peptide of sixteen amino acids, carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

85. (Previously presented) The method of claim 84, wherein the composition comprises 5% to 10% of the compound.

86. (Previously presented) The method of claim 84, wherein the compound blocks a DNAj protein.

87. (Previously presented) A method comprising removing a metal ion from a metalloprotein by means of a compound having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

88. (Previously presented) The method of claim 87, wherein the metal ion is zinc and the metalloprotein is a zinc finger or zinc ring protein.

89. (Previously presented) A method as set forth in claim 87 wherein the removal of the metal ion inhibits a function of the metalloprotein.

90. (Previously presented) The method of claim 89, wherein the metalloprotein is a metal dependent enzyme.

91. (Previously presented) The method of claim 89, wherein the metalloprotein is a zinc finger or zinc ring protein.

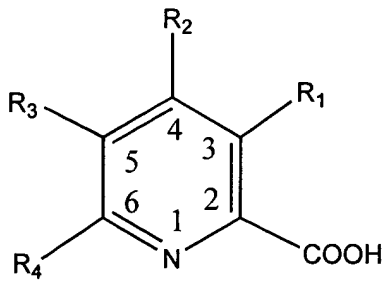
92. (Previously presented) The method of claim 91, wherein the metalloprotein is Lambda-1, Rho-3, NSP1, Ncp7, TAT, E6, E7, E1A, NS2(+NS3), HSV-1:ICPO, HSV-2:MDBP, ICP6:ribonucleotide, Reductase, Equine Herpes virus-1, or ZR.

93. (Previously presented) The method of claim 91, wherein the compound interacts with at least one zinc finger or zinc ring domain of the metalloprotein.

94. (Previously presented) The method of claim 89, wherein the compound denatures the metalloprotein.

95. (Previously presented) The method of claim 89, wherein the metal ion is zinc, iron, or copper.

96. (Previously presented) A method for inhibiting activity of a heat shock protein, comprising contacting a cell, that was subjected to a stress stimulus, with a composition comprising a compound having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

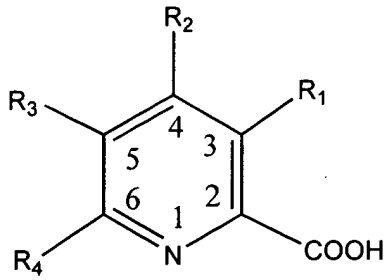
wherein the compound blocks a metalloprotein.

97. (Previously presented) The method of claim 99, wherein the heat shock protein is Hsp27 or Hsp70.

98. (Previously presented) The method of claim 99, wherein the metal ion protein is a zinc finger or zinc ring protein.

99. (Previously presented) The method of claim 98, wherein the zinc finger or zinc ring protein is a DNAj protein.

100. (Previously presented) A method for inhibiting cell growth, comprising the step of exposing a cell to a compound having the following structure:



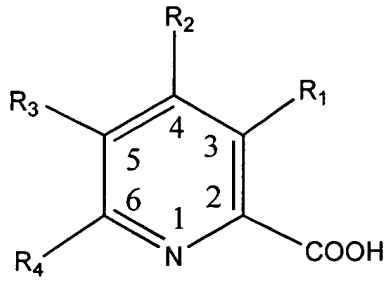
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

wherein the compound chelates a metal ion.

101. (Previously presented) The method of claim 100, wherein the cell is WI-38, LoVo, KB, or MDA-48 cells.

102. (Previously presented) A method for inhibiting cell growth, comprising contacting a cell with a composition comprising an agent having the following structure:



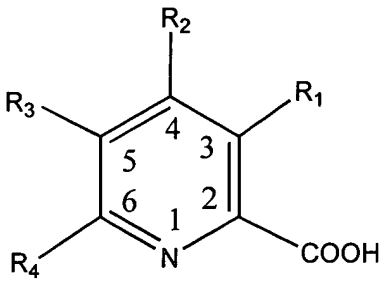
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen,

wherein the compound chelates a metal ion.

103. (Previously presented) The method of claim 102, wherein the cell is WI-38, LoVo, KB, or MDA-48 cells.

104. (Previously presented) An immunogenic composition comprising a metalloprotein that is covalently bound to a compound having the following structure:



or a pharmacologically acceptable salt thereof,

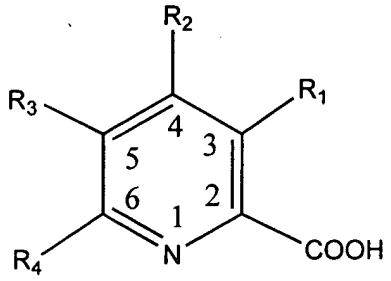
wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

105. (Previously presented) The immunogenic composition of claim 104, further comprising an adjuvant.

106. (Previously presented) The immunogenic composition of claim 105, wherein the adjuvant is keyhole limpet hemocyanin (KLH).

107. (Previously presented) A method for preparing an immunogenic composition, comprising the steps of:

(a) binding a metalloprotein to a compound having the following structure:



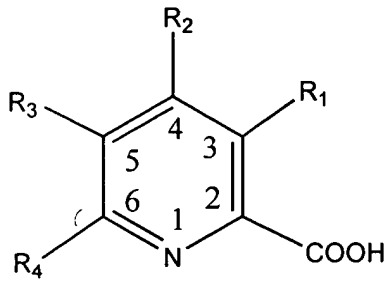
or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen; and

(b) conjugating the metalloprotein to an adjuvant.

108. (Previously presented) A method for modulating an immune response in an individual, comprising administering to the individual an immunogenic composition of claim 106 or 107.

109. (Currently Amended) A composition comprising an interferon and a compound having the following structure:



or a pharmacologically acceptable salt thereof,

wherein R_1, R_2, R_3, or R_4 are independently selected from the group consisting of a carboxyl group, methyl group, ethyl group, propyl group, isopropyl group, butyl group, isobutyl group, secondary butyl group, tertiary butyl group, pentyl group, isopentyl group, neopentyl group, fluorine, chlorine, bromine, iodine, and hydrogen.

110. (Previously presented) A method of controlling replication of a virus comprising contacting a cell with the composition of claim 109.

111. (Previously presented) The method of claim 110, wherein the virus is a hepatitis C virus.

112. (New) The composition of claim 109 wherein the interferon is interferon –gamma.

113. (New) A method of controlling replication of a virus comprising contacting a cell with the composition of claim 112.

114. (New) A method of controlling replication of a virus comprising contacting a cell with the composition of claim 113.